

**METHODS AND COMPOSITIONS FOR HIGH LEVEL EXPRESSION OF
A HETEROLOGOUS PROTEIN WITH POOR CODON USAGE**

ABSTRACT OF THE DISCLOSURE

- 5 High level expression of heterologous proteins in host cells is frequently limited by the presence of rarely utilized codons, due to depletion of the internal tRNA pool and stalling of translation. This invention provides expression host cells generated by introduction of a vector for the expression of an array of tRNA genes that are rare in the host cells. The modified host cells are capable of efficiently supporting expression of selected recombinant
- 10 genes which otherwise would be limited by the presence of rare codons.